

USER MANUAL

GOLDMUND TELOS 400
Universal Power Amplifier



Congratulations.

Thank you for purchasing the GOLDMUND TELOS 400.

You have acquired one of the best Universal Power Amplifiers ever made for professional and domestic uses.

Please take some time to read this manual. It may provide you with useful information to make your pleasure of listening to the TELOS 400 even higher.

INTRODUCTION

The GOLDMUND TELOS 400 UNIVERSAL POWER AMPLIFIER

Goldmund was founded in 1978 and has ever since been dedicated to the accurate reproduction of sound and image.

At Goldmund, we strive to lead in the creation, development and manufacture of the industry's most advanced technologies, including audio and video systems, home - networking and music distribution.

The guiding principle at Goldmund is to produce a precise sound with the least possible loss of quality through the different stages. Goldmund will never adopt a technology before it is sufficiently developed to satisfy the high quality standards we set. This is why Goldmund has often rejected mainstream technologies and developed its own.

W A R N I N G



No connection or manipulation must be done before reading these instructions. Damage of the amplifier may result if the following instructions are not consciously understood and applied.

This extremely high quality amplifier possesses new technical features which are a necessity for accurate sound reproduction in the best audio systems.

Only careful installation and use can provide the satisfaction you are expecting.

The installation instructions must be carried out in full and the mentioned precautions taken to get the expected result and to avoid impairing the amplifier's performance.

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UNPACKING TELOS 400 UNIVERSAL POWER AMPLIFIER

You will find in the GOLDMUND TELOS 400 box:

- q The amplifier
- q The power cord
- q This manual

Please keep the packaging in case you need to transport the amplifier at a later date.

WARNING

IF YOU NEED TO RETURN THE TELOS 400 TO THE FACTORY OR TO YOUR LOCAL REPRESENTATIVE FOR A WARRANTY REPAIR, **PLEASE NOTE THAT IT MUST BE REPACKED IN THE ORIGINAL PACKAGING.**

THIS PACKAGING HAS BEEN DESIGNED SPECIFICALLY TO PROTECT YOUR TELOS 400 IN TRANSIT. USE OF ALTERNATIVE PACKAGING IS LIKELY TO RESULT IN DAMAGE, INVALIDATING WARRANTY COVER.

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CHOICE OF AMPLIFIER LOCATION AND COOLING

The GOLDMUND TELOS 400 amplifier, as all high quality amplifiers generates a large amount of heat when driven at high levels and must be vented properly. It is mandatory to allow a proper cooling of the heat sinks and vents.

If you use more than one TELOS 400 at any location, do not stack them and do not place other equipment on or too close to them.

Due to its weight, and to maximize the effect of the built-in "Mechanical Grounding" construction, the TELOS 400 is better located on the floor. Other very strong supports can be used if they offer rigid transmission to the floor.

LINE VOLTAGE ADJUSTMENT

A voltage selector is provided inside the amplifier.

If your line voltage is not adapted to the voltage indicated on the serial plate of the amplifier, please consult your local GOLDMUND dealer for internal adjustment.

ATTENTION

On the 220V position, the GOLDMUND TELOS 400 amplifier will function properly for main line voltage between 190V and 245V. On the 110V position, the main line must deliver between 95 and 125V. If your main line is usually out of these tolerances, please consult your GOLDMUND dealer.

Please check the value of the main line fuse. This fuse is located on the back panel of the amplifier, above the two power cord receptacles.

Use a 16A delayed fuse.

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CONNECTIONS

Connect the power cord to the back of the amplifier and plug it into the nearest wall plug. Use only a 3 lugs grounded plug, for safety reasons. To get the best sound from the amplifier, avoid any multiple plug or extension cord.

If used with an analog signal, connect the interconnect between the preamp and each power amp and position the Analog/Digital input switch to analog. You may either use the RCA female socket or the XLR. The XLR socket, especially useful in professional installations, is wired as follows:

1. Grounding, Shielding
2. Hot
3. Cold

When used with a digital input signal, connect the digital input cable to the digital input and switch the input switch to digital. Since a digital Spdif cable carries 2 channels you may link the digital output to the next amplifier to transfer the second channel.

Connect the speaker cable to one of the red and black terminals in the back of the amplifier, or, if you use a Goldmund High Definition speaker cable, you can connect directly from the speaker cable to one of the coaxial plugs on the back panel of the amplifier, bypassing the amplifier adapter module of the speaker cable.

The 2 separate outputs (both 5 way post and coaxial) are connected internally in parallel. They are provided to facilitate the connection in bi-wiring systems.

You may notice that the ground of the input plug and the black speaker terminal are the same polarity. The amplifier is non-inverting in phase.

AMPLIFIER CONTROLS

There is no power ON/OFF switch at the connector. As soon as the amplifier is connected to AC line and if the amplifier has not detected an error previously, the amplifier is receiving current. but can be in one of four modes; STANDBY, ON, OFF or ERROR. (see Manual Operation section).

The TELOS 400 may be powered on either manually (Manual Operation) or automatically when receiving a signal (Auto-Power Operation). This is selected internally by the small white 10-position circular selector located on the top circuit of the amplifier, close to the big capacitors.

There is one position for Manual operation and 9 for Auto-Power operation. Positions 1 through 8 enable various delays to be set. This supports powering-up a quantity of amplifiers without a big surge on the AC line.

Position 0: Manual Operation

Position 1: Power after 200ms

Position 2: Power after 400ms

Position 3: Power after 600ms

Position 4: Power after 800ms

Position 5: Power after 1s

Position 6: Power after 1.2s

Position 7: Power after 1.4s

Position 8: Power after 1.6s

Position 9: Power after 1.8s

AMPLIFIER CONTROLS

Manual Operation

On the front plate of the GOLDMUND TELOS 400 amplifier you will find only one POWER key.

When first connected to mains power the green Led will flash (equal time on and off) for around fifteen seconds whilst the amplifier goes through the POWER UP sequence.

At the end of this sequence, the amplifier enters STANDBY mode. The green Led flashes slowly (four sequences off then one on).

Once in STANDBY mode, a short key press (<1 second) switches the amplifier ON. The green Led is permanently illuminated in this mode. If the digital input is used, the yellow Led may flicker, showing there is no lock and the amp remains muted until a lock is found. With an analog input, the amp is immediately operational and the orange Led illuminated

The amp may be returned to STANDBY mode with a short key press. A long key press (>2 seconds) takes the amplifier in POWER OFF mode.

If an error is detected the red Led will be illuminated. Once the cause of the error has been removed, the amplifier can be returned to STANDBY mode with a long key press.

These security features are provided to reduce the risk of accidental POWER ON or POWER OFF and to protect the amplifier in ERROR mode.

Key Press Sequence Summary

Start mode	Power Key Press	End mode	Green Led mode
ERROR	SHORT	-	-
	LONG	STANDBY	SLOW FLASH
STANDBY	SHORT	ON	ON
	LONG	OFF	OFF
ON	SHORT	STANDBY	SLOW FLASH
	LONG	OFF	OFF
OFF	SHORT	-	-
	LONG	STANDBY	SLOW FLASH

AMPLIFIER CONTROLS

Auto-Power Operation

In AUTO-POWER mode, the amp is turned on automatically when receiving an audio signal.

This mode is useful when several amplifiers are used together in a multi-amp system or when the power amplifiers are not easily accessible.

Other display

If an abnormal situation is found by the TELOS 400, the front panel red light may turn ON, and the power of the amplifier is instantaneously set OFF.

The red Led indicates an over temperature situation, HF oscillation or DC signal has been detected.

Before re-starting the amplifier, detect what caused the problem and remove the cause first.

The amp will remain OFF with the red Led on until the user intervenes.

To unlock the amp from error mode, press the power key for >2 seconds. or restart the power sequence.

SOUND QUALITY OPTIMIZATION

The GOLDMUND exclusive "Mechanical grounding".

In the GOLDMUND TELOS 400 amplifier, GOLDMUND has, as in other of its Ultimate Line components, fully implemented an optimized vibration evacuation path. This is called by GOLDMUND: "*Mechanical Grounding*". The perfect adjustment of this evacuation provides the Telos 400 with an extraordinary dynamic capability and transparency, especially on low efficiency speakers.

To get all the benefits of this design, the TELOS 400 must be located on a very rigid support, or better directly on the floor, to be directly coupled with the building's rigid construction. Try various locations until you find the most rigid one. Avoid any decoupling material, carpet especially, even between the furniture and the floor. Use the four pin-point feet to couple the amplifier to the supporting furniture or to the floor.

SAFETY FEATURES

The GOLDMUND TELOS 400 amplifier provides features to protect the amplifier and the speakers against all mishandling or component failure. However precautions must be taken to avoid problems with a very high power amplifier.

Protection against DC

The TELOS 400 is a DC-coupled amplifier. If the associated preamplifier is badly designed or defective (often true for tube preamps), the speakers could be damaged.

In such a case, the DC protection circuit of the TELOS 400 will automatically turn off the amplifier. This detection circuit is totally immune to any sonic effect.

To indicate that the amplifier has been turned off by the protection circuit, a red Led will be displayed on the front panel.

When the source of DC offset is suppressed, turn ON the amplifier again.

Protection against HF oscillations

In the same way, the speaker must be protected against a large amount of high frequency oscillation, if present, before and after to avoid any danger for the tweeters, even if these frequencies remain unnoticed.

The amplifier is by itself extremely stable. However some mishandling must be avoided in order to avoid any oscillation:

- Never plug an input cable into a power amp when it is turned on.
- Be careful to use only very high quality interconnects. If the ground connection becomes loose, there is a big danger of oscillation. Warranty is voided if this occurs.
- Never run the input and output (speaker) cables in parallel.

If the TELOS 400 detects excessive oscillation, the amplifier will be turned OFF automatically. You will have to suppress the source of oscillation and turn it ON again once the protection is activated.

SAFETY FEATURES

Overheating protection

If for any reason (malfunction, too high level, too low load impedance) the temperature of the amplifier could reach a dangerous level and the TELOS 400 could be damaged.

To avoid this type of damage, if the temperature rises too high, a protection circuit switches the amp OFF automatically. A red front panel light indicates that the amplifier has been turned OFF by the protection circuit.

If this happens, let the amplifier cool for some time. We strongly recommend investigating the cause of the temperature gain before operating the amp again.

TECHNICAL DATA

SAFETY FEATURES

- AC voltage fuse: min 16 A slow-blow .

FRONT PANEL CONTROLS

- 1 control key (Muting/Standby and 2 sec tempo for ON/OFF).
- Red Led display for Over-heating, DC offset or HF protection and Overload.
- Green Led display for Power ON, operating mode (blinking in standby).
- Yellow Led display for signal connection and digital Lock.

REAR PANEL CONNECTORS AND CONTROLS

- Power cord: universal socket 3 lugs.
- Main fuse (16 A slow-blow).
- Green-yellow AC earth binding post.
- Output speaker 2 x 5 ways post in parallel.
- Output speaker 2 x Coaxial connectors in parallel.
- Analog Input connector RCA.
- Digital Spdif input and output RCA connector.
- Input connector XLR for analog balanced input.
- Switch between analog or digital input.
- Switch right or left channel selection from the Spdif input.

SIZE AND WEIGHT

- 27 cm (11") W x 41 cm (16.5") D x 23 cm (9") H.
- Weight: 30 kg net.

WARRANTY

- 3 years parts and labor.


GOLDMUND
TELOS 400 AMPLIFIER
SWISS MADE

-3 0 +3
-6 +6
-9 +9
LEVEL



ANA

DIG



IN



OUT



LEFT

RIGHT

